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STATISTICAL BULLETIN

Metropolitan Life Insurance Co.

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DANGERS IN CHILDBEARING

Even at this late date, more women between the ages of 15 and 45 years die from causes incidental to childbearing than from any other cause except tuberculosis. This condition has begun to interest seriously those concerned with the conservation of human life and, as a result, a hitherto undeveloped field of public health work has been opened up.

An inquiry sent out recently by this Company to health officers of all the states and larger cities having good birth registration has resulted in the following information for the year 1919:

1. More than five women die from disorders of pregnancy or childbirth out of each 1,000 births registered. This is equivalent to one maternal death out of every 185 confinements.

2. Forty-five babies out of every 1,000 total births, or one out of every 22, are born dead.

3. Forty babies out of every 1,000 born alive die before they are one month old.

Such are the dangers to mother and infant at the present time.

As against the above figures are the following which prevail among women who receive prenatal and maternity care under skilled direction:

1. Only *two* women instead of *five* die out of every 1,000 confinements.

2. Only *twelve* babies instead of *forty-five* are still-born in every 1,000 births.

3. Only *ten* babies instead of *forty* per 1,000 born alive die under one month of age.

Results such as these have been achieved in Boston, in New York City and elsewhere. They can be obtained anywhere if adequate

nursing and medical care are available to women during pregnancy, at confinement and during the first month of the infant's life. Such is the great promise in life conservation held out by prenatal and maternity care for women.

HEART DISEASE: A PROBLEM FOR THE NEW PUBLIC HEALTH MOVEMENT

There are at least two million men, women and children in the United States suffering from serious heart impairments. Such is the conclusion that must be drawn from figures of the draft examinations, from the examinations of men in industry, from school medical examinations, and the results of life insurance medical examinations. About 2 per cent. is the prevailing incidence of organic heart disease of various forms in those examined.

Persons impaired with heart disease suffer from a death rate which is at least twice the normal for their ages. Those who have well-compensated mitral regurgitation, which is generally looked upon as not a very serious condition, show in the insurance figures a mortality about twice that expected at their ages. What is especially disturbing in the heart disease situation is the fact that in recent years there has been no marked decline in the death rate and that the disease has now reached first place in the list of causes of death among the general population. During the last two decades the country has addressed itself to the tuberculosis situation and the death rate from this disease declined very appreciably; but, to control heart disease, virtually no public health effort has been expended. A very fruitful field of preventive work awaits the newer public health movement. It will require the combined effort of the medical practitioner, those engaged in school medical inspection, in industrial hygiene and in general public health work, to discover incipient cases, to advise cardiac patients as to personal and occupational hygiene, and otherwise to safeguard these impaired people. The death rate in middle-life ought to show a more favorable aspect as the result of widespread preventive and therapeutic efforts directed against heart disease.

DIPHTHERIA SITUATION BETTER

During February, 252 deaths from diphtheria were registered among policyholders of the Industrial Department of the Metropolitan. The resulting death rate is 24.1 per 100,000 lives exposed. This is slightly above the average rate for this time of the year, but

there has been a very gratifying decrease as compared with January when the rate was 32.3, and with the December, 1919, figure of 37.0. February diphtheria mortality was 25 per cent. lower than that for January, and 40 per cent. lower than that for December.

The decline in the death rate from this disease was quite general. In St. Louis, Chicago, the City of Washington, etc., such figures as are available for both cases and deaths, show a gratifying improvement in the situation.

INFLUENZA EPIDEMIC EXPERIENCE OF FEBRUARY, 1920

In the *Bulletin* for February it was pointed out that, although epidemic influenza was reported in the Middle West about January 15th, marked increases in the general death rates of the Industrial Department of the Metropolitan Life Insurance Company did not become manifest until nearly two weeks afterward. No very serious effect of the influenza could, therefore, be shown for the month of January. The month of February, however, has shown the full effect of the return of the epidemic upon the mortality experience of Industrial policyholders.

Since the first week in January, 1920, the death rates per 100,000 from influenza and pneumonia, by weeks, in the Industrial Department, compared with a number of general population experiences, were as follows:

Week Beginning	M.L.I. Co. Industrial	General Population* of					
		N. Y. City	Chicago	Milwaukee	Washington	St. Louis	Kansas City
January 5	122	218	215	287	286	381	216
12	143	261	307	149	351	274	482
19	133	476	948	517	1052	488	1595
26	182	1308	2227	1621	2350	1578	1828
February 2	311	1982	2013	2110	2123	2674	3641
9	477	1791	989	1388	1191	1880	2764
16	1119	984	487	470	712	860	1225
23	744	511	272	356	388	400	877

*Data from U. S. Census Bureau *Weekly Health Index* and U. S. *Public Health Reports.*

It will be seen that the maximum rate in the Industrial Department is reached, as a rule, two weeks after the peak week of the larger cities. The difference in peak weeks represents the period, from ten days to two weeks, required to bring the records of deaths to the Home Office from the several distant field points.

Since all of the records of deaths occurring are not available for detailed analysis at the present time, our review of the statistics of this 1920 January-February recrudescence of influenza, according to principal areas affected, by color, sex and age classes of the deceased, and chronologically (by actual date of death) will be given in a later number of the *Bulletin*. From the statistics now available, however, it would seem safe to say that the group of wage earners comprised in our statistics, experienced a very much lower rate of epidemic mortality in 1920 than during the corresponding weeks of the 1918 outbreak. The final statistics of this 1920 recrudescence should afford interesting and valuable data for comparison of the 1918-1919 and the 1920 outbreaks with reference to the color, sex and age incidence of influenza.

EFFECT OF TUBERCULOSIS UPON LONGEVITY OF FEMALES

In the February *Bulletin*, we pointed out that the effect of tuberculosis was to cut the average life-time of white males three and one-half years, and the life-time of colored males approximately five years. We can now add to this the statement that tuberculosis reduces the life-span of white females more than two and one-half years at birth and, of colored females, just five years. The following table supplements the one shown on page 6 of the February *Bulletin*:

Average After-life-time of White and Colored Females and Number of Years Lost Because of Tuberculosis

Age	White Females			Colored Females		
	Tuberculosis Present	Tuberculosis Not Present	Years Lost	Tuberculosis Present	Tuberculosis Not Present	Years Lost
0	51.8	54.4	2.6	38.6	43.7	5.0
5	55.2	58.0	2.8	46.2	51.6	5.5
10	51.1	53.8	2.7	42.4	47.8	5.3
15	46.7	49.3	2.6	38.6	43.3	4.7
20	42.5	44.8	2.3	35.8	39.4	3.7
30	34.7	36.1	1.4	29.8	31.7	1.9
40	27.2	28.0	.7	23.6	24.5	.9
50	19.9	20.3	.4	17.6	18.1	.4
60	13.3	13.5	.2	12.3	12.5	.2
70	8.4	8.5	.1	8.0	8.1	.1

White females, therefore, show the least loss from tuberculosis, 2.6 years; and, both colored males and females, five years. The loss of years of life suffered by the colored people is especially striking,

that of colored females being about twice as great as for white females. An important element in this is the very excessive death rate from tuberculosis among colored girls, the rate being about nine times as high as among white girls for all the ages under 15.

We would repeat the inference drawn last month from these figures. The control of tuberculosis carries with it the saving to the average human life of from two and one-half to five years, depending upon the color and sex group in which the individuals find themselves.

The addition to human longevity from eradication of this disease alone would be as great as has been accomplished by all the forces of public hygiene during the last three decades. A gain so great is well worth the venture. In the following figures, we give a summary of the years of after-life-time lost because of tuberculosis, for both color groups and for each of the two sexes, at selected ages of life:

Number of Years of Average After-life-time Lost because of Tuberculosis

Age	White		Colored	
	Males	Females	Males	Females
0	3.5	2.6	5.0	5.0
5	3.8	2.8	5.6	5.5
10	3.9	2.7	5.4	5.3
15	3.8	2.6	5.1	4.7
20	3.7	2.3	4.4	3.7
30	2.8	1.4	2.9	1.9
40	1.7	.7	1.7	.9
50	.8	.4	.8	.4
60	.3	.2	.4	.2
70	.1	.1	.2	.1

MORTALITY RECORD OF FEBRUARY, 1920

The death rate among Industrial policyholders in February, 1920, was higher than in any month since February, 1919. The rate increased 50 per cent. over that for the preceding month, from 10.2 to 15.7 per 1,000 living.

Influenza and pneumonia were responsible for most of the excess mortality during the month. The rate for these conditions combined has more than quadrupled. As is nearly always the case when epidemic influenza prevails, the rate from tuberculosis, organic heart disease, Bright's disease and from the conditions incidental to

childbearing increased markedly during the month. The rate from heart disease increased 32 per cent.; from Bright's disease, 27 per cent.; and from the maternal conditions, 100 per cent. When influenza and pneumonia deaths decline, the rates from these chronic and organic conditions and puerperal abnormalities drop also. This, at any rate, has been our observation during the recent periods of influenza prevalence.

During this same month, there has been a noticeable increase in the prevalence of the acute infectious diseases of children. The measles rate practically doubled in February as compared with January. This condition was especially prevalent in Pennsylvania, but has also been reported as more than ordinarily present in other centers. Mortality from whooping cough has also practically doubled in the month. The diphtheria rate has decreased since January. Typhoid fever, cerebral hemorrhage, suicides and accidents all declined during the month of February.

The table on the next page gives the mortality data for February in comparison with the facts for January, 1920, and for the whole year 1919.

METROPOLITAN LIFE INSURANCE COMPANY

Death Rates per 100,000 from Principal Causes. Premium Paying Business in Industrial Department.

MONTHS OF JANUARY AND FEBRUARY, 1920

CAUSES OF DEATH	RATE PER 100,000 LIVES EXPOSED		
	February, 1920	January, 1920	Year 1919
Total—all causes	1568.2	1018.1	1041.4
Typhoid fever	3.4	7.6	7.1
Measles	12.2	6.4	3.5
Scarlet fever	6.6	6.8	3.8
Whooping cough	10.9	5.3	3.1
Diphtheria	24.1	32.3	20.5
Influenza	245.3	17.5	94.1
Tuberculosis (all forms)	146.0	141.5	150.5
Meningitis (all forms)	6.7	8.0	6.6
Cerebral hemorrhage	68.1	70.1	57.9
Organic diseases of heart	163.4	124.1	111.7
Pneumonia (all forms)	366.7	124.3	117.5
Other respiratory diseases	31.8	24.1	17.2
Diarrhea and enteritis	8.0	8.0	16.6
Bright's disease	96.4	75.9	72.2
Puerperal state	39.1	19.6	19.2
Suicides	4.4	4.9	6.6
Homicides	4.3	4.3	6.7
Other external causes (excluding suicides and homicides)	44.3	58.6	78.0
All other causes	286.6	278.7	248.8

TO THE READERS OF THE STATISTICAL BULLETIN

Criticisms and suggestions concerning the *Bulletin* are invited from its readers. Suggestions from health officers, from social workers and others interested in public health as to timely subjects for discussion in these pages will be particularly welcome.

FLORENCE NIGHTINGALE, 1820-1920

The one-hundredth anniversary of the birth of Florence Nightingale will occur on May 12, 1920. It would be fitting if the reports of the several city and state health departments for the month of May devoted some space to comment on the achievements of Miss Nightingale in nursing reform, hospital management, vital statistics, public and military hygiene, and in health education. There is a wealth of material available for reference in Sir Edward T. Cook's "Life of Florence Nightingale" (MacMillan, 2 Vols.) and in Nutting and Dock's "History of Nursing" (Putnam, 4 Vols.). This suggestion should also appeal to superintendents of schools of nursing and to directors of schools of public health in connection with their commencement programmes.